

### **REMARKS**

Applicant has reviewed the Office Action, and made selected changes to the application in response thereto. Reexamination and reconsideration of the application as amended are requested.

### **THE OFFICE ACTION**

The Examiner rejected claims 1-3 and 12 under 35 U.S.C. §102(e) as being anticipated by Asada et al. (JP 2002-19812). In addition, claims 4 and 5 were rejected as being unpatentable under 35 U.S.C. §103 over Asada, while claims 6-11 were rejected under 35 U.S.C. §103 over Asada and a general design choice within the skill of the art. These rejections are respectfully traversed, and the amended claims are deemed to define over any fair teaching of these references. Claims 1-12 remain pending while claims 1, 3, 6 and 12 have been amended to clarify formal grammar as well as substantive issues.

#### **Claim 1**

Claim 1 has been amended to identify that the first set of neck lugs include an upward extending ramp portion (reference no. 39 at page 10, lines 3 and associated Figure 5). Additionally, the second set of neck lugs include a lower surface facing downward of said neck portion and a venting portion at a higher level than the lower surface, the venting portion further having a downturned end that extends to at least a level corresponding to the lower surface (see support on page 10, lines 25-29 and Figure 5). Here, the venting portions 50 are turned downward at the second ends of neck lugs 35A and 35B, and terminate at a level generally corresponding to the lower surfaces 40 of the neck lugs. The venting portion 50 retains the associated cap lugs and allows for the cap to relieve the pressure of the can while the cap is retained from being forced off (or possibly ejected from) the neck section 25. This is due to the venting portion turned downward at the end thereby retaining the associated lug while the cap is rotated (see page 11, lines 12-28).

The modified claims and specification cited as support offer to solve a particular problem associated with the cited reference. Specifically, Asada fails to describe

downturned ends at the neck lugs to adequately prevent cap blowoff during venting of a container under increased positive pressure.

Asada discloses a cap and container arrangement designed to prevent the cap from blowing a rapid jet of gas or contents within the container when opening the cap by rotating from a sealed state to an unsealing direction. This arrangement comprises a cylindrical container 2 sealable with a cap 1 having lugs 7 that adapt to engagement threads 11 about a regio oralis 10 (oral region). Four threads are recited to include different orientations whereby each length and shape of the four engagement threads 11 and guidance threads 12 are different, respectively. (See Asada Figure 4). Each orientation includes either a first restricting part 14 or a second restricting part 15 associated with engagement threads 11 and guidance threads 12 that slidably engage the cap lugs 7.

Asada functions to regulate the inclination of the cap 1 by providing threads with an inclined slope at different locations of each thread relative to each associated cap lug. With specific reference to figure 4, from left to right the first thread depicts an engagement thread 11 with a first length and a guidance thread 12 with an elongated incline. The second thread depicts an engagement thread 11 with a first length and a guidance thread 12 having both an inclined length and a flat length. The first and second threads comprising the 2<sup>nd</sup> restricting part 15. The third thread depicts an engagement thread 11 that is slightly longer than the first length with a guidance thread 12 having an elongated incline that is slightly shorter than the elongated incline of guidance thread 12 of the first thread. The fourth thread depicts an engagement thread 11 that is longer than engagement thread 11 of the third thread and includes a guidance thread 12 that is shorter than the guidance thread 12 of the third thread. All four threads have a different physical structure.

Asada also specifically requires a notch part 9 formed in a sealant on the underside of the cap to provide "minute clearance" c whereby the positive pressure in a container escapes from the minute clearance at the time when inclination of the cap is regulated (See Figures 1, 2 and 7(a)-(e)). Asada relies on the notch 9 to provide minute clearance c during cap rotation for the gas in the container to fall out gradually.

However, claim 1 is distinguished from this orientation as there exist two types of

neck lugs [a first set and a second set] whereby the second set includes a venting portion 50 and a downturned end that resists further rotation of the cap lugs while allowing pressurized gas to be vented from the container. Further, the structure of the container end recited in claim 1 does not require notches within the seal 17 for the gradual release of pressure during the rotation of the cap. The existence of the downturned end about the venting portion 50 of the second set of neck lugs 35A, 35B provides a different structure, function and a superior result than Asada as it acts to retain lugs rather than merely restricting the inclination of the lugs during the rotation of the cap. Asada fails to teach or even suggest providing downturned ends from a venting portion of the neck lugs. The container of claim 1 provides venting without the need for notches on the underside of the cap and acts to efficiently prevent unwanted cap blowoff from pressure release.

Therefore, for at least these reasons, independent claim 1 and claims 2-5 dependent therefrom are now in condition for allowance. Reexamination and reconsideration are respectfully requested.

#### Claim 6

Similarly, independent claim 6 has been amended to identify that the first set of neck lugs include an upward extending ramp portion (reference 39 at page 10, lines 3-4 and associated Figure 5). Additionally, the second set of neck lugs having a conformation different than the first set are amended to include a cam surface at a common distance from the surrounding curl with a reduced circumferential arcuate length than the cam surfaces associated with the first set of neck lugs and a venting portion having a downturned end from a lower surface, the venting portion is located at a second distance closer to the surrounding curl than the cam surfaces (see support on page 10, lines 25-29 and Figure 5). Further, claim 6 is amended to clarify that at least one of said cap lugs associated with said first set of neck lugs remain in contact with the associated cam surface (see page 6, lines 10-22).

Similar to the arguments stated above, the venting portions 50 are turned downward at the second ends of neck lugs 35A and 35B and allow for the cap to tilt in the region above those venting portions and relieve the pressure of the can while the

cap is retained from being forced off (or possibly ejected from) the neck section 25. This is due to the venting portion having a downturned end (see page 11, lines 12-28). These stop portions depending from the ends of the venting portion provide a rotational limit to further cap rotation while venting continues. Normally, this venting occurs rapidly, in a fraction of a second (see page 5, lines 23-26).

The arguments in support of patentability outlined above are applicable with respect to the rejection of claim 6 as Asada fails to teach or even suggest providing a neck lug having a venting portion with a downward end to retain cap lugs as recited in claim 6. Further, the structure of claim 6 provides for a superior venting container without the need for notches on the seal member within the cap. The modified claims solve a particular problem associated with the cited reference. Specifically, Asada fails to adequately prevent cap blowoff during container venting of a container under increased positive pressure.

Therefore, for at least these reasons, independent claim 6 and claims 7-11 depending therefrom are now in condition for allowance. Reexamination and reconsideration of these claims as amended are respectfully requested.

#### Claim 12

Method claim 12 has been amended to clarify that at least a second set of neck lugs is provided having a cam surface with reduced length, located on a common plane with the cam surfaces of the first set of neck lugs and a venting portion having a downturned end extending from a lower surface, the venting portion being located at a second distance closer to the curl than the cam surfaces. This allows at least one of the cap lugs to release from an associated one of the cam surfaces and to free a segment of the seal member from the seal surface while the cap lugs associated with the first set of neck lugs temporarily remain in contact with the associated cam surface.

The venting portions 50 are turned downward at the second ends of neck lugs 35A and 35B and allow for the cap to tilt in the region above those venting portions and thereby relieve the pressure of the can while the cap is retained from being forced off (or possibly ejected from) the neck section 25. This is due to the venting portion turned downward at the end thereby retaining the associated cap lug during cap rotation (see

page 11, lines 12-28). These stop portions depend from the ends of the venting portion and provide a rotational limit to further cap rotation while venting continues. Normally this venting occurs rapidly, in a fraction of a second. (See page 5, lines 23-26).

Asada fails to teach or even suggest providing a neck lug having a venting portion with a downward end to retain cap lugs as recited in the amended claim. Further, the method of claim 12 provides for a superior venting container without the need for notches on the seal member within the cap. The modified claims and specification cited as support offer to solve a particular problem associated with the cited reference. Specifically, Asada fails to adequately prevent cap blowoff during venting of a container under increased positive pressure.

Therefore, for at least these reasons, independent claim 12 is now in condition for allowance. Once again, reexamination and reconsideration are respectfully requested in light of these detailed arguments in support of patentability.

### CONCLUSION

For the reasons detailed above, it is respectfully submitted all claims remaining in the application (Claims 1-12) are now in condition for allowance. Although no fee is deemed necessary, any additional fees may be charged to Deposit Account No. 06-0308.

Respectfully submitted,

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